

# U.S. ENVIRONMENTAL PROTECTION AGENCY

## Region VI



### West Fertilizer Plant Explosion Summary of Mobile Air Monitoring Data Reporting Period 04/19/2013

EPA conducted mobile air monitoring in the residential neighbor hoods surrounding the incident location. EPA monitored for ammonia (NH<sub>3</sub>) and volatile organic compounds (VOCs) A summary of the air monitoring data collected during this reporting period is provided below.

**Table 1 – Summary of Mobile Air Monitoring Locations**

Collection Time	Parameter	Count of Readings	Count of Detects	Average Concentration	Maximum Detection	Units
0:29 - 1:12	NH3	265	0	0.0	0.0	ppm
	VOC	265	0	0.0	0.0	ppm
0:35 - 2:08	NH3	10045	0	0.0	0.0	ppm
	VOC	10045	27	0.0	0.2	ppm
3:36 - 4:17	NH3	10870	0	0.0	0.0	ppm
	VOC	10870	63	0.0	0.4	ppm
6:21 - 7:16	NH3	15870	0	0.0	0.0	ppm
	VOC	15870	25	0.0	0.1	ppm
8:26 - 9:08	NH3	12595	0	0.0	0.0	ppm
	VOC	12595	59	0.0	0.6	ppm
10:05 - 10:29	NH3	5915	0	0.0	0.0	ppm
	VOC	5915	33	0.0	0.5	ppm
12:26 – 13:42	NH3	15920	0	0.0	0.0	ppm
	VOC	15920	0	0.0	0.0	ppm
14:57 – 16:18	NH3	12645	0	0.0	0.0	ppm
	VOC	12645	0	0.0	0.0	ppm
17:41 – 19:22	NH3	23275	0	0.0	0.0	ppm
	VOC	23275	0	0.0	0.0	ppm
20:57 – 21:36	NH3	7065	0	0.0	0.0	ppm
	VOC	7065	0	0.0	0.0	ppm

The screening level for ammonia is the ATSDR Minimum Risk Level (MRL) of 1.7 ppm. The Agency for Toxic Substances and Disease Registry (ATSDR) has an acute inhalation MRL for ammonia of 1.7 ppm based upon an exposure of 1 to 14 days. The MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse, non-cancer health effects over a specified duration of exposure. The information in this MRL serves as a screening tool to help public health professionals decide where to look more closely to evaluate possible risk of adverse health effects from human exposure.

Figure 1 – 0:29 – 1:12 Mobile Run Track and NH3 Results





**Legend**  
**130 AM Run**  
**NH3 Results**

- Non-Detect
- 0 - 10 ppm
- 10-30 ppm
- > 30 ppm

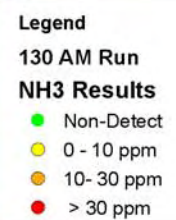




Figure 3 - 3:36-4:17 Mobile Run Track and NH3 Results





Figure 4 – 6:21-7:16 Mobile Run Track and NH3 Results





**Legend**  
**8 AM Run**  
**NH3 Results**

- Non-Detect
- 0 - 10 ppm
- 10- 30 ppm
- > 30 ppm





Figure 6 – 10:05-10:29 Mobile Run Track and NH3 Results





**Legend**  
**Noon Run**  
**NH3 Results**

- Non-Detect
- 0 - 10 ppm
- 10- 30 ppm
- > 30 ppm





Figure 8– 14:57-16:89 Mobile Run Track and NH3 Results





**Legend**  
**545 PM Run**  
**NH3 Results**

- Non-Detect
- 0 - 10 ppm
- 10- 30 ppm
- > 30 ppm

The image is an aerial photograph of a residential and commercial area. A large, irregular green outline encompasses a central portion of the map, including a residential neighborhood with many houses, a commercial area with several large buildings and parking lots, and a sports field. The green outline is composed of several connected line segments. The legend in the bottom left corner indicates that the green outline represents 'Non-Detect' results for NH3. The map also shows various other features such as roads, parking lots, and green spaces.





Figure 10– 20:57-21:36 Mobile Run Track and NH3 Results

